

AMENDMENT TO THE CLAIMS

1-68. (Cancelled)

69. (Withdrawn) A computer-implemented method for determining whether to interrupt processing of an image, comprising:

obtaining a raw scan image;

generating a collection of slope-oriented information

based on at least one portion of the raw scan image; and

utilizing the collection of slope-oriented information

to determine an image quality characteristic of said at least one portion of the raw scan image.

70. (Withdrawn) The method of claim 69, wherein generating the collection of slope-oriented information comprises:

creating a raw collection of slope-oriented

information using data from a monochrome image

that corresponds to the raw scan image; and

generating a processed collection of slope-oriented

information using data from the raw collection of slope-oriented information.

71. (Withdrawn) The method of claim 70, wherein creating the raw collection of slope-oriented information comprises dividing the monochrome image into an array of pixel grids.

72. (Withdrawn) The method of claim 70, wherein creating the raw collection of slope-oriented information comprises executing a contour trace of features within at least one pixel grid comprised in the monochrome image.

73. (Withdrawn) The method of claim 70, wherein creating the raw collection of slope-oriented information comprises generating an entry corresponding to at least one pixel grid comprised in the monochrome image, the entry comprising a count of the changes in the x coordinate in the pixel grid, and a count of the changes in the y coordinate in the pixel grid.

74. (Withdrawn) The method of claim 73, wherein the entry corresponding to the at least one pixel grid further comprises a count of the pixels tested in the at least one pixel grid.

75. (Withdrawn) The method of 74, wherein utilizing the collection of slope-oriented information to determine an image quality characteristic of at least one portion of the raw scan image comprises comparing the count of the pixels tested in the at least one pixel grid to a threshold pixel count.

76. (Withdrawn) The method of claim 75, wherein the threshold pixel count can be tuned.

77. (Withdrawn) The method of 75, wherein utilizing the collection of slope-oriented information to determine an image quality characteristic of at least one portion of the raw scan image comprises determining a ratio of pixel grids of the monochrome image wherein the count of the pixels is at least equal to the threshold pixel count.

78. (Withdrawn) The method of claim 77, wherein determining whether to interrupt processing of an image comprises interrupting when the ratio of pixel grids wherein the count of the pixels is at least equal to the threshold pixel count, is below a threshold ratio.

79. (Withdrawn) The method of claim 73, wherein generating the processed collection of slope-oriented information using data from the raw collection of slope-oriented information comprises:

calculating a hypotenuse of the at least one pixel

grid as the square root of the sum of the square of the count of the changes in the y coordinate in the pixel grid and the square of the count of the changes in the x coordinate in the pixel grid; and
calculating a slope of the at least one pixel grid as
the arcsine of the quotient of the count of the changes in the y coordinate in the pixel grid divided by the hypotenuse of the pixel grid.

80. (Withdrawn) The method of claim 79, further comprising normalizing the slope of the pixel grid to a value between zero and 180 degrees.

81. (Withdrawn) The method of 79, wherein utilizing the collection of slope-oriented information to determine an image quality characteristic of at least a portion of the raw scan image comprises comparing the slopes of a plurality of pixel grids of the monochrome image to reference slopes of corresponding pixel grids of a reference image model.

82. (Withdrawn) The method of 81, wherein utilizing the collection of slope-oriented information to determine an image quality characteristic of at least a portion of the raw scan image further comprises generating a quantified level of similarity of the slopes of the plurality of pixel grids of the monochrome image to the reference slopes of the corresponding pixel grids of the reference image model.

83. (Withdrawn) The method of claim 82, wherein determining whether to interrupt comprises interrupting when the quantified level of similarity is below a threshold level of similarity.

84. (Withdrawn) The method of claim 83, wherein the threshold level of similarity can be tuned.

85. (Previously Presented) A computer-implemented method for quantifying a quality of an image, comprising the steps of:

obtaining a raw scan of an image;
preprocessing the raw scan to obtain a monochrome
image;
dividing the monochrome image into an array of pixel
grids;
executing a count of pixels within at least one pixel
grid of the array of pixel grids, wherein the
count is based on a pixel value of at least one
pixel within the at least one pixel grid;
comparing the count of the pixels in the at least one
pixel grid to a reference; and
determining a quantified quality classification as a
relation of the count of the pixels to the reference.

86. (Previously Presented) The method of 85, wherein the reference comprises a threshold pixel count.

87. (Previously Presented) The method of claim 85, wherein the reference can be tuned.

88. (Previously Presented) The method of claim 85 wherein executing a count of pixels within at least one pixel grid comprises:

determining pixel values for pixels in the at least
one pixel grid; and
counting pixels having a pixel value over a
predetermined value.

89. (New) The method of claim 85 wherein obtaining a raw scan of an image comprises obtaining a raw scan of a fingerprint.

90. (New) The method of claim 85 wherein obtaining a raw scan of an image comprises obtaining a raw scan of an image in a gray-scale format.

91. (New) The method of claim 85 wherein preprocessing the raw scan to obtain a monochrome image comprises enhancing primary features of the raw scan.

92. (New) The method of claim 85 wherein preprocessing the raw scan to obtain a monochrome image comprises adjusting the aspect ratio.

93. (New) The method of claim 85 wherein preprocessing the raw scan to obtain a monochrome image comprises preprocessing a fractional set of available image data.

94. (New) The method of claim 85 wherein dividing the monochrome image into an array of pixel grids comprises dividing the monochrome image into an array of $n \times n$ pixel grids, where $n > 1$.

95. (New) The method of claim 85 wherein comparing the count of the pixels in the at least one pixel grid to a reference comprises determining the adequacy of the image data for subsequent processing.

96. (New) The method of claim 85 wherein comparing the count of the pixels in the at least one pixel grid to a reference comprises determining the quality of scanned fingerprint image data.

97. (New) The method of claim 85 wherein determining a quantified quality classification as a relation of the count of the pixels to the reference comprises a quality classification of the most white 25% of the listed pixel values.

98. (New) The method of claim 85 wherein determining a quantified quality classification as a relation of the count of the pixels to the reference comprises a quality classification of the most black 25% of the listed pixel values.